

DECEMBER 2.

The President, Dr. RUSCHENBERGER, in the chair.

Seventeen members present.

*Fertilization of Yucca.*—Mr. THOMAS MEEHAN detailed at length the discoveries of Dr. Engelmann and Prof. Riley in regard to the fertilization of the *Yucca* by the aid of a small night moth, *Pronuba yuccasella* of Riley, and observed that in this region the fertilization was effected by this insect every year. In the Rocky Mountains of Colorado in 1871, he saw the *Yucca angustifolia*, everywhere seeding in great abundance; but in his journey in 1873, he saw not a solitary seed-vessel in any of the plants, and he suggested that perhaps some periodical insect might take the place of the *Pronuba* in that country.

*Note on a Fungoid Root Parasite.*—Mr. THOMAS MEEHAN exhibited a small Norway spruce, in which the branches and leaves were all of a golden tint. He explained that when plants had little food, or lost their fibres in wet soil by which they could not make use of food, the yellow tint was generally exhibited in the leaves of plants. The similarity of the appearances suggesting, he examined and found the roots thickly enveloped by the mycelia of a fungus, which destroyed the young fibres as fast as they were developed. Only a few trees had been attacked two years ago; but last season and this the fungus had spread underground from one plant to another, till now there were over a hundred in the diseased condition of the one exhibited. He had supposed it was one of the small microscopic forms of fungi; but in October of the present year, the mycelia developed into a brown agaric with a pileus about two inches broad, but the exact species of which he could not positively determine. The mycelia of some of the larger fungi would destroy the roots of grasses, as in the well-known case of "fairy rings;" and he believed the *Gardener's Chronicle* had conclusively shown that trees were also injuriously affected by some of them; but he thought that it had not before been so directly proved in the case of American trees.

He suggested, that, as the phenomena in the case of the troublesome disease known to American cultivators as the peach "yellows" were all similar, those who had the opportunity to examine might find the roots affected by a fungus in the same way.